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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/500,926	03/11/2005	Dac-Hwan Kim	1592-4043	8948

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MORGAN & FINNEGAN, L.L.P.
3 WORLD FINANCIAL CENTER
NEW YORK, NY 10281-2101

EXAMINER

HAWK, NOAH CHANDLER

ART UNIT	PAPER NUMBER
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3636

MAIL DATE	DELIVERY MODE
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07/23/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/500,926	Applicant(s) KIM, DAE-HWAN	
	Examiner Noah C. Hawk	Art Unit 3636	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 June 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14 and 15 is/are allowed.
- 6) ☒ Claim(s) 1, 3, 5 and 7-13 is/are rejected.
- 7) ☒ Claim(s) 4 and 6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/25/07 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lynch in US Patent 5421356 in view of Jang '040, Carter in US Patent 6138702 and Carter in US Patent 6240940.

a. Regarding Claim 1, Lynch teaches a canopy comprising a plurality of pillars (24) an end connection block (60), a slide connection block (62), a plurality of roof edge frames (29), a plurality of roof center frames (52), a rod connection

block (64), an upper head connection block (66), a lower head connection block (67) and a roof cloth (22). Lynch fails to teach a connection block including a corner reinforcement bar. Jang '040 teaches a canopy framework having a corner reinforcement bar (30) hinge coupled between a roof end connection block (60) and an upper head connection block (50). It would have been obvious to one of ordinary skill in the art at the time of invention to modify the device of Lynch by adding a corner reinforcement bar as taught by Jang '040 in order to provide support for the cover along the diagonal corners of the framework and increase the interior space of the canopy. Lynch, as modified, fails to teach that the roof center frames are longer than the roof edge frames. Carter '702 teaches a canopy structure wherein the rod of the roof center frame (88) is longer than the rod of the roof edge frame (42) and the first rod (100) of the roof center frame is longer than the second rod (92) of the roof center frame. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the device of Lynch, as modified, by using roof center frames that are longer than the roof edge frames and have a longer first rod than second rod in order to increase the space under the roof of the canopy. Lynch, as modified, fails to teach that the second rod of the roof edge frame is longer than the first rod of the roof edge frame. Carter '940 teaches a canopy having a first (54) and a second (66) roof edge frame rods, the second being longer than the first (shown by the fact that the legs are angled outward). It would have been obvious to one of ordinary skill in the art at the time of invention to modify the device of Lynch, as modified, by

using a second roof edge frame rod that is longer than the first in order to allow the pillars to assume an angled stance, thereby providing a more stable platform for the canopy.

b. Regarding Claim 3, Lynch, as modified, further teaches a multiunit roof (see Lynch, Figure 2c and 1c) installed by further installing the pillars, the roof edge frames and the roof center frames to form a plurality of the upper connection block and the lower head connection blocks.

c. Regarding Claim 12, Lynch, as modified, further teaches that the multiunit roof is a single-roof multiunit manufactured by removing the central pillar and connecting a plurality of small roofs (Best seen in Figure 1c).

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lynch, as modified, as applied to claim 1 above, and further in view of Surrendi in US Patent 4945936 and Jang in US Patent 6152157. Lynch, as modified, fails to teach that the slide connection block is injection molded. Surrendi teaches a connection block (\$) for a canopy structure, the block being injection molded plastic (see Surrendi, Column 16-19). It would have been obvious to one of ordinary skill in the art at the time of invention to modify the device of Lynch, as modified, by using an injection molded slide connection block as taught by Surrendi in order to provide an easily manufactured and durable block member. Lynch, as modified, fails to teach a locking slide connection block. Jang '157 teaches a slide connection block (15) having a cylindrical rail (the tube through which pin 140 slides), a slide key lever (140), an elastic spring (115) and a key lever handle (141) fixed to a screw hole (hole through which handle passes in the lever)

in a side surface of the lever. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the device of Lynch, as modified, by using a slide connection block as taught by Jang '157 in order to provide an easily and safely operable locking member for the slide connection block.

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lynch, as modified, as applied to claim 1 above, and further in view of Surrendi. Lynch, as modified, teaches that the connection blocks have square shapes (best seen, for example in Figure 3, 8, 12 or 13) and have an arm coupled via a column or cylindrical shaft with a spline penetrating pin holes (216 and 218 for example) and a pin hole (45 or 47) with a fixing pin (8). Lynch, as modified, fails to teach that the slide connection block, end portion connection block, rod connection blocks, upper and lower connection blocks are plastic injection molded. Surrendi teaches a connection block (4) for a canopy structure, the block being injection molded plastic (see Surrendi, Column 16-19). It would have been obvious to one of ordinary skill in the art at the time of invention to modify the device of Lynch, as modified, by using injection molded connection blocks as taught by Surrendi in order to provide an easily manufactured and durable block member.

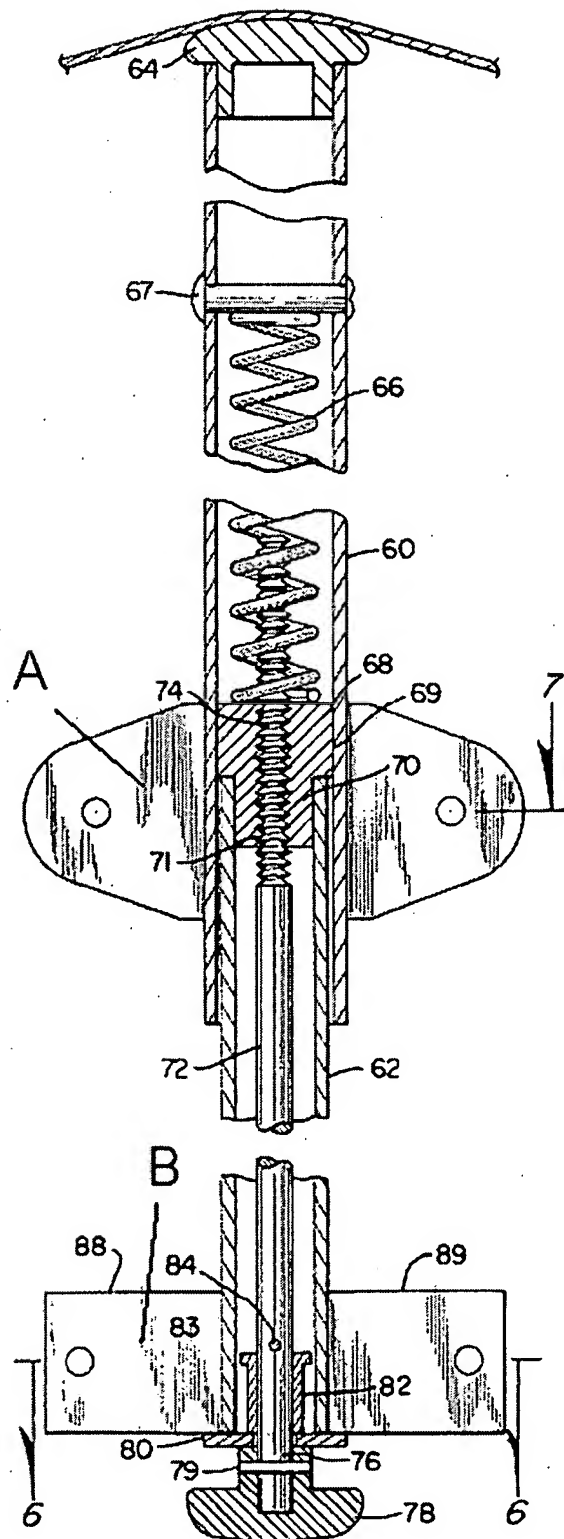
6. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lynch, as modified, as applied to claim 1 above, and further in view of Glover et al. in US Patent 6516823. Lynch, as modified, fails to teach a ventilation opening or sunshield roof ribs. Glover teaches a canopy structure having a ventilation opening formed at a sharp center of the roof cloth (82), the upper head connection block (90) penetrating the

ventilation opening to protrude upward, an additional double storied sunshield roof (166) where hinge type sunshield roof ribs (97) are formed is installed at the upper head connection block separated a predetermined distance from the ventilation opening. Glover further teaches that the sunshield roof ribs comprise: radial sunshield roof ribs (131, 132, 133, 134) forming the sunshield roof; and hinge type sunshield roof ribs (127, 128, 129, 130) having one end portion pivoting at a center portion of the radial sunshield roof ribs or deviated from the center portion, sliding along the radial sunshield roof ribs, or fixed to the radial sunshield roof ribs capable of being folded by a hinge, and the other end portion pivoting the corner reinforcement bar (91, 92, 93, 94) and/or the second rod of the roof center frame. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the device of Lynch, as modified, by adding a ventilation opening and sunshield roof as taught by Glover in order to provide a means for venting pressure from the underside of the canopy if the wind becomes heavy.

7. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lynch, as modified, as applied to claim 1 above, and further in view of Mallookis et al. in US Patent 5490532. Lynch, as modified, fails to teach an adjustable upper roof column. Mallookis teaches wherein an upper roof column (60) capable of sliding along the upper head connection block (A) is installed on the lower head connection block (B) by penetrating the upper head connection block, an elastic spring (66) is installed under the upper roof column and in a lower roof column to enable height adjustment by erecting the upper roof column, and a rotary handle (78) is installed on the lower head connection block capable of freely rotating to adjust the displacement of the elastic

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spring and having one end portion penetrating the elastic spring and fixed to an end portion of the elastic spring capable of freely rotating and the other end portion capable of advancing and retreating by mean of a nut (68) and a screw (74) with respect to the lower head connection block during rotation. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the device of Lynch, as modified, by using an adjustable upper roof column as taught by Mallookis et al., in order to provide "optimum tautness" and an "easily adjusted" tension (see Mallookis, Column 1, lines 55-58) in the cover.



Mallookis et al., Figure 5

8. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lynch, as modified, as applied to claim 1 above, and further in view of Suh in US Patent 6575656. Lynch, as modified, fails to teach a fixing block to connect the inner and outer pipes of the pillars. Suh teaches an adjustable pillar having an inner pipe (11) an outer block (12), a key lever (24) and a fixing block comprising a main body (40), a slide key lever (24), an elastic spring (32) and a key lever handle (25). It would have been obvious to one of ordinary skill in the art at the time of invention to modify the device of Lynch, as modified, by using a fixing block arrangement as taught by Suh in order to provide a easily and safely operable locking member for the adjustable pillars.

9. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lynch, as modified, as applied to claim 3 above, and further in view of Zeigler in US Patent 5274980. Lynch, as modified, fails to teach a single large roof for the multiunit. Zeigler teaches a double-roof manufactured by removing the central pillar and forming a single large roof (Best seen in Figure 1a). It would have been obvious to one of ordinary skill in the art at the time of invention to modify the roof of Lynch, as modified by using a single roof double-roof multiunit as taught by Zeigler in order to produce a larger usable area under the canopy.

Allowable Subject Matter

10. Claims 14 and 15 are allowed.

11. Claims 4 and 6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

12. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection made in light of the amended claims. A teaching has been provided showing a roof edge frame having a second rod longer than the first.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Carter '494 teaches a roof edge frame with second rods longer than the first rods.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Noah C. Hawk whose telephone number is 571-272-1480. The examiner can normally be reached on M-F 9am to 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Dunn can be reached on 571-272-6670. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

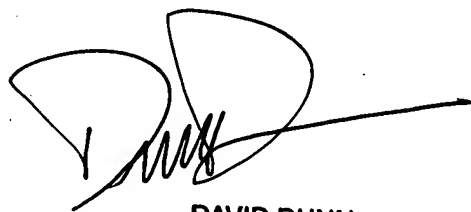
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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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A handwritten signature in black ink, appearing to read 'D Dunn', with a long horizontal line extending to the right.

DAVID DUNN
SUPERVISORY PATENT EXAMINER